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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,540	06/04/2007	Yoshitaka Aoyama	52029	9682

7590 08/03/2009  
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EXAMINER
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JENNISON, BRIAN W

ART UNIT	PAPER NUMBER
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3742

MAIL DATE	DELIVERY MODE
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08/03/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,540	<b>Applicant(s)</b> AOYAMA ET AL.	
	<b>Examiner</b> BRIAN JENNISON	<b>Art Unit</b> 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Response to Arguments***

1. Applicant's arguments, see page 1, filed 4/14/2009, with respect to claims 5, 9, 11, 13, 15 have been fully considered and are persuasive. The objections and 112 rejections of claims 5, 9, 11, 13, 15 have been withdrawn.

2. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoyama et al (US 2003/0189033).

Aoyama teaches:

**Regarding Claim 1:** Fig 1 shows a welding system with a movable electrode 34. The part feeding device is integrated by board 7 which acts as a coupling device. The term integrated does not hold patentable weight and since this term is used the parts may be attached by any means.

**Regarding Claim 2:** An arm 53 is used to fix the welding device to a stationary robot.

**Regarding Claim 3:** Fig 1 shows a drive unit 54 which acts as drive means. Shaft 26 is a fixed shaft which is integrated through board 7. The system is also capable of rotating support member 27. **See Paragraph 0009.**

**Regarding Claim 4:** the board 7 acts as a coupling member and is attached to the arm 53 which is a fixing member

**Regarding Claims 6 and 7:** The part projected may easily be a bolt or a nut as shown in the figures and described in paragraphs 0005 and 0006.

***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al in view of Aoyama (US 4,943,098).**

The teachings of Aoyama et al have been discussed above.

Aoyama et al also teaches: **(movable electrode 10 and feed apparatus 14 are integrated through coupling bracket 20. See Paragraph [0058], Lines 7-8)**

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Aoyama et al fails to teach:

**Regarding Claim 5:** The welding system according to claim 1, wherein a plurality of part feeding devices each of which feeds a different type of part are attached to the coupling member or an auxiliary member integrated with the coupling member.

Aoyama teaches:

**Regarding Claim 5:** Figs 24 and 25 show two part feeding devices which would be attached to a coupling bracket each feed rod 9 supplies part P or P'. **(See Column 8, Lines 59-65.)**

In view of the teachings of Aoyama it would have been obvious to one of ordinary skill in the art at the time of the invention to include with the teachings of Aoyama et al, the plurality of part feeding devices since Aoyama teaches the part supply rods for feeding a nut and a bolt to be welded.

**1. Claims 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al in view of Quinci et al (US 5,396,842) and Aoyama et al US(2003/0127432).**

The teachings of Aoyama et al have been discussed above.

Aoyama et al fails to teach:

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**Regarding Claims 8 and 12:**

and an auxiliary clamp block for setting a moving distance of the support rod in advance is disposed over or under the clamp block in such a manner that the auxiliary clamp block penetrates the support rod.

**Regarding Claims 11 and 15:** The welding system (or positioning system) according to claim 8, wherein the part feeding device is a device that feeds a part held by the feeding rod to the fixed electrode or the movable electrode of the welding device, in order to weld the part fed between the fixed electrode and the movable electrode by the feeding rod to the target part.

**Regarding Claims 9 and 13:** wherein the clamp block has a penetration hole through which the support rod with a circular cross section penetrates, a slit section continued from the penetration hold, and a fixing bolt penetrating the slit section.

**Regarding Claims 10 and 14:** wherein: the auxiliary clamp block has a penetration hole through which the support rod penetrates, a slit section continued from the penetration hole, and a fixing bolt penetrating the slit section; and an end face of the auxiliary clamp block can abut to an end face of the clamp block.

Aoyama et al ('432) teaches:

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**Regarding Claims 8 and 12:** The welding system according to claim 1, wherein a support rod which is attached to the part feeding device and extends approximately in a vertical direction penetrates a clamp block fixed on the stationary member **(A rod 16, fixed by arm 8, capable of being extended in a vertical direction penetrates bracket 17. See Fig 1. and Paragraph [0042].)** and the clamp block clamps and loosens the outer periphery of the support rod to set the vertical position of the support rod, **(The bracket 17 is capable of loosening the rod 16.)**

**Regarding Claims 11 and 15:** The welding system (or positioning system) according to claim 8, wherein the part feeding device is a device that feeds a part held by the feeding rod to the fixed electrode or the movable electrode of the welding device, in order to weld the part fed between the fixed electrode and the movable electrode by the feeding rod to the target part. **(Projection bolt feed apparatus 14 feeds shank 2 by part feeding rod 18. The shank is fed to fixed electrode 11 and movable electrode 10. The part is fed to be welded by electrodes 10 and 11. See Paragraph [0064])**

Quinci et al teaches: **(applicant merely states Quinci fails to teach these limitations but they are clearly described below. The applicant simply restates the invention.)**

**Regarding Claims 8 and 12:** Fig 8 shows a shaft 12 extending through a clamp 24 and a gripper block 26 or auxiliary clamp capable of setting a moving distance for the rod. It may be loosened and or tightened **(See Column 3, Lines 11-15)**

**Regarding Claims 9 and 13:** Fig 8 shows a clamp 24 with cylindrical passage 36 which rod 12 penetrates and space 42 or slit section continued from the penetration hole where screw 44 penetrates the slit section. **(See Column 3, Lines 28-46)**

**Regarding Claims 10 and 14:** The auxiliary clamp is merely a duplication of the clamp block which functions as an aid to the clamp block. The shaft 12 supports a plurality of clamp arms 24 which would abut the end face of each other. A second clamp arm would be considered an auxiliary clamp.

In view of Quinci et al's teachings it would have been obvious to one of ordinary skill in the art at the time of the invention to include with the teachings of Aoyama et al, the clamp and auxiliary clamp since, Quinci teaches a clamp and a gripper to open or close a passage to fix the clamp to the shaft or release it.

It would also have been obvious to one having ordinary skill in the art at the time of the invention was made to include an auxiliary clamp, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN JENNISON whose telephone number is (571)270-5930. The examiner can normally be reached on M-Th 7:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRIAN JENNISON/  
Examiner, Art Unit 3742

7/30/2009  
/TU B HOANG/  
Supervisory Patent Examiner, Art Unit 3742